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EXAMINER	
PASS, NATALIE	
ART UNIT	**PAPER NUMBER**
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/733,215	PRASAD ET AL.	
	Examiner	Art Unit	
	Natalie A. Pass	3626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 April 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15,32 and 33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15,32 and 33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Notice to Applicant

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 19 April 2007 has been entered.

2. This communication is in response to the Request for Continued Examination and amendment filed 19 April 2007. Claims 1-5, 7-15 have been amended. Claims 16-31 have been cancelled. Claims 32-33 have been newly added. Claims 1-15, 32-33 remain pending.

Claim Objections

3. Claim 1 is objected to because of the following informalities:

The claim listing in the amendment of 19 April 2007 does not accurately match the previous claim listing. The text of any added or deleted subject matter must be shown by properly marking the added or deleted text. Examiner notes, for example, that in claim 1 at line 6 the words "based upon" appear to be previously recited subject matter in claim 1, however they were not previously recited, but the lack of insertion markings makes this unclear; and, as another example, in claim 1 the words "compiling a data set ... [...] ... associated with the selected member" which were previously recited, have been deleted subject matter from claim 1, however the lack of deletion markings makes this unclear.

Specifically, amendments to the claims filed on or after July 30, 2003 must comply with 37 CFR 1.121(c) which states:

(c) *Claims*. Amendments to a claim must be made by rewriting the entire claim with all changes (*e.g.*, additions and deletions) as indicated in this subsection, except when the claim is being canceled. Each amendment document that includes a change to an existing claim, cancellation of an existing claim or addition of a new claim, must include a complete listing of all claims ever presented, including the text of all pending and withdrawn claims, in the application. The claim listing, including the text of the claims, in the amendment document will serve to replace all prior versions of the claims, in the application. In the claim listing, the status of every claim must be indicated after its claim number by using one of the following identifiers in a parenthetical expression: (Original), (Currently amended), (Canceled), (Withdrawn), (Previously presented), (New), and (Not entered).

(1) *Claim listing.* All of the claims presented in a claim listing shall be presented in ascending numerical order. Consecutive claims having the same status of "canceled" or "not entered" may be aggregated into one statement (*e.g.*, Claims 1–5 (canceled)). The claim listing shall commence on a separate sheet of the amendment document and the sheet(s) that contain the text of any part of the claims shall not contain any other part of the amendment.

(2) *When claim text with markings is required.* All claims being currently amended in an amendment paper shall be presented in the claim listing, indicate a status of "currently amended," and be submitted with markings to indicate the changes that have been made relative to the immediate prior version of the claims. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived. Only claims having the status of "currently amended," or "withdrawn" if also being amended, shall include markings. If a withdrawn claim is currently amended, its status in the claim listing may be identified as "withdrawn—currently amended."

(3) *When claim text in clean version is required.* The text of all pending claims not being currently amended shall be presented in the claim listing in clean version, *i.e.*, without any markings in the presentation of text. The presentation of a clean version of any claim having the status of "original," "withdrawn" or "previously presented" will constitute an assertion that it has not been changed relative to the immediate prior version, except to omit markings that may have been present in the immediate prior version of the claims of the status of "withdrawn" or

"previously presented." Any claim added by amendment must be indicated with the status of "new" and presented in clean version, *i.e.*, without any underlining.

(4) *When claim text shall not be presented; canceling a claim.*

(i) No claim text shall be presented for any claim in the claim listing with the status of "canceled" or "not entered."

(ii) Cancellation of a claim shall be effected by an instruction to cancel a particular claim number. Identifying the status of a claim in the claim listing as "canceled" will constitute an instruction to cancel the claim.

(5) *Reinstatement of previously canceled claim.* A claim which was previously canceled may be reinstated only by adding the claim as a "new" claim with a new claim number.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Newly amended claim 2 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

(A) Claim 2 recites limitations that are new matter, and are therefore rejected. The added material which is not supported by the original disclosure is as follows:

- "electronic selection of the intervention flag," as disclosed in claim 2 at line 4.

35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. "New matter" constitutes any material which meets the following criteria:

a) It is added to the disclosure (either the specification, the claims, or the drawings) after the filing date of the application, and

b) It contains new information which is neither included nor implied in the original version of the disclosure. This includes the addition of physical properties, new uses, etc.

In particular, the Examiner was unable able to find any support for this newly added language within the specification as originally filed on 8 December 2000. Applicant is respectfully requested to clarify the above issues and to specifically point out support for the newly added limitations in the originally filed specification and claims.

Applicant is required to cancel the new matter in the reply to this Office Action.

6. If Applicant continues to prosecute the application, revision of the specification and claims to present the application in proper form is required. While an application can, be amended to make it clearly understandable, no subject matter can be added that was not disclosed in the application as originally filed on 8 December 2000.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(A) Claim 1 recites the limitation "the claim data" in line 11.

There is insufficient antecedent basis for these limitations in the claim.

9. The rejection of claim 8 under 35 U.S.C. 112, second paragraph for insufficient antecedent basis is hereby withdrawn due to the amendment filed 19 April 2007.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

NOTE: The following rejections assume that the subject matter added in the 19 April 2007 amendment are NOT new matter, and are provided hereinbelow for Applicant's consideration, on the condition that Applicant properly traverses the new matter objections and rejections made in sections 4-6 above in the next communication sent in response to the present Office Action.

11. Claims 1-11, 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over LASH (2001/0020229 A1) for substantially the same reasons given in the previous Office Action (paper number 20061128), and further in view of Trusheim, et al, U.S. Patent Number 6, 385, 589. Further reasons appear hereinbelow.

(A) As per newly amended claim 1, LASH discloses a method for targeting one or more high risk members of a healthcare plan for proactive care, the method comprising:

storing healthcare data and a predicted future healthcare utilization for each of a plurality of members of a healthcare plan, wherein the stored healthcare data comprises data associated with a plurality of disease categories , and wherein the predicted future healthcare utilization for each of the plurality of members is based upon the stored healthcare data associated with each of the plurality of members (Lash; Table 2, paragraphs [0007], [0010] , [0022], [0036], [0038], [0050], [0053]-[0054]); Examiner interprets Lash's teachings of "[t]he present invention is desirably used to predict which patients of various types, e.g., asthmatic or diabetic patients, [i.e. a plurality of diseases] will become heavy users of medical services" (Lash; paragraph [0010]), to teach a form of "wherein the stored healthcare data comprises data associated with a plurality of disease categories;"

selecting one or more high-risk members from the plurality of members based upon the members' respective predicted future healthcare utilizations (LASH; Figures 2, 3, 3A, 3B, paragraphs [0007], [0010], [0021]-[0022], [0025], [0037]);

selecting an intervention group of the high-risk members, each member of the intervention group having a selected number or type of intervention flags (Lash; Figure 4, paragraphs [0041]- [0042]); Examiner interprets Lash's teachings of "[t]hose patients with a score above a certain level, for example 90%, can be isolated for direct intervention ... [...] ... . The process by which this is accomplished is illustrated in FIG. 4. In particular, in step 80, those patients with a score above a predetermined level [reads on "having a selected number or type of intervention flags"], for example 90 are selected out" (Lash; paragraph [0041]) and Lash's

teachings of "[b]y identifying a group of patients with a high probability of admission, scarce resources can be directed to those patients at the highest risk. Interventions designed to improve health and decrease the patient's risk can then be directed at these very high risk patients" (Lash; paragraph [0042]) to teach a form of "selecting an intervention group of the high-risk members, each member of the intervention group having a selected number or type of intervention flags."

Lash fails to explicitly disclose

searching the claim data associated with each selected high-risk member to identify the presence of at least one intervention flag for the member, wherein each intervention flag corresponds to a member attribute amenable to intervention;

generating an output including the at least one intervention flag and the claim data associated with each member in the intervention group.

However, the above features are well-known in the art, as evidenced by Trusheim.

In particular, Trusheim teaches a method further including

searching the claim data associated with each selected high-risk member (Trusheim; Figure 29, Figure 30, column 3, line 55 to column 4, line 11, column 14, lines 59-66, column 15, line 54 to column 16, line 12, column 19, lines 46-60) to identify the presence of at least one intervention "code" (reads on "flag") for the member, wherein each intervention "code" (reads on "flag") corresponds to a member attribute amenable to intervention (Trusheim; Figure 32, column 2, lines 46-60, column 5, lines 20-29, column 11, lines 10-17, 27-40, column 12, lines 8-11); and

generating an output including the at least one intervention flag and the claim data associated with each member in the intervention group (Trusheim; Figure 29, Figure 30, Figure 32, column 21, lines 16-18, column 21, line 64 to column 22, line 10).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the method of LASH to include these limitations, as taught by Trusheim, with the motivations of providing "a flexible and proactive system to improve the health of a population of member patients" and of "lower[ing] the costs of caring for the population" by detecting "risk situations and allow[ing] care providers to proactively address avoidable process failures that correspond to the risk situations" (Trusheim; column 2, lines 54-64).

(B) As per newly amended claims 2-5 and claim 6, LASH and Trusheim disclose a method as analyzed and discussed in claim 1 above,

wherein the output is a display that shows detailed information regarding the at least one intervention flag in response to electronic selection of the intervention flag for a selected member of the intervention group by a user (Trusheim; Figure 32, Items 164 and 166);

wherein the intervention flags that may be identified for each member of the intervention group include mental health diagnoses, self-care characteristics, equipment/monitors, and drug history (LASH, paragraphs [0022], [0040], [0049]);

wherein each member's predicted future health care utilization is calculated from the stored past healthcare utilization data using a predictive model (LASH; paragraphs [0007], [0022], [0036]-[0037], [0051], [0064]);

wherein intervention factors that may be identified for each member of the intervention group include emergency room visits, hospital admissions, out-of-network costs, multiple

provider specialties, multiple prescriptions, no appropriate provider for a medical episode, missing aspects of care, and non-compliance with prescriptions (LASH; paragraphs [0010], [0023]-[0024], [0040], [0049]-[0050]); and

further comprising linking the intervention flag to each of the plurality of claims in the data set corresponding to the intervention flag (LASH; paragraphs [0007], [0036], [0042]) paragraph [0049], paragraph [0059]).

The motivations for combining the respective teachings of Lash and Trusheim are as given in the rejection of claim 1 above, and incorporated herein.

(C) As per newly amended claim 7, LASH and Trusheim teach a method as analyzed and discussed in claim 1 above, however fail to explicitly recite the predicted future cost. However, LASH teaches that cost data can be included along with other data (LASH; paragraph [0037], lines 10-20), and the predictive model is applied to predict high use or high cost patients. (LASH; paragraphs [0007], [0022], [0036]-[0037], [0051], [0064]); and Trusheim teaches "[d]ata from the analytical data repository can be queried using database query language or subjected to statistical analysis ... [...] ... Typical items to be "analyzed" [reads on "calculated"] include ... [...] ... costs per month, ... [...] ... hospital stay[s] per month, ... [...] ... number of hospital admissions per month, and ... [...] ... number of physician visits per month" (Trusheim; column 24, lines 59-66). It is readily apparent that future cost is a direct function of the predicted high use or high cost patients. It would have been obvious to one having ordinary in the art to include calculating and displaying a predicted future cost for each member with the motivation of monitoring and reducing medical costs (LASH; paragraph [0042], lines 16-19) and of "lower[ing] the costs of caring for the population" by detecting "risk situations and allow[ing]

care providers to proactively address avoidable process failures that correspond to the risk situations" (Trusheim; column 2, lines 54-64).

The motivations for combining the respective teachings of Lash and Trusheim are as given in the rejection of claim 1 above, and incorporated herein.

(D) As per newly amended claims 8-11, LASH and Trusheim disclose a method as analyzed and discussed in claim 1 above,

wherein each member's predicted future healthcare utilization is a relative risk value representing the quotient of the member's predicted future healthcare utilization divided by an average predicted future healthcare utilization for the plurality of members (LASH; paragraphs [0007], [0055], [0048], page 8, claims 8, 12, 17); Examiner interprets Lashes teachings of "probability values for each patient which are indicative of the likelihood that the patient will acquire high service utilization characteristics. For instance, such high service use characteristics can include the patient suffering one or more high-cost medical events or episodes, or the patient becoming a high user of services overall relative to other patients" (Lash; paragraph [0007]) and of comparing a score with a threshold for each of the members (LASH; paragraph [0055]) and of calculating average probabilities and applying a probability equation to each patient record (LASH; claim 12) as teaching a form of "a relative risk value representing the quotient of the member's predicted future healthcare utilization divided by an average predicted future healthcare utilization for the plurality of members;"

wherein each member's predicted future healthcare utilization is a relative risk ranking based upon the member's relative risk in comparison to relative risks for other members, each member's relative risk representing the quotient of the member's predicted future healthcare

utilization divided by an average predicted future healthcare utilization for the plurality of members (LASH; paragraphs [0007], [0055], [0048], page 8, claims 8, 12, 17); Examiner interprets Lashes teachings of "probability values for each patient which are indicative of the likelihood that the patient will acquire high service utilization characteristics. For instance, such high service use characteristics can include the patient suffering one or more high-cost medical events or episodes, or the patient becoming a high user of services overall relative to other patients" (Lash; paragraph [0007]) and of comparing a score with a threshold for each of the members (LASH; paragraph [0055]) and of calculating average probabilities and applying a probability equation to each patient record (LASH; claim 12) as teaching a form of "relative risk ranking based upon the member's relative risk in comparison to relative risks for other members, each member's relative risk representing the quotient of the member's predicted future healthcare utilization divided by an average predicted future healthcare utilization for the plurality of members;"

wherein an intervention flag is the presence of a selected medical episode in the data set for which for which the member is not taking medicine (reads on "missing a specified treatment") (LASH, paragraph [0040]); and

wherein an intervention factor is the presence of a selected medication in the data set for which the member is "doing things that exacerbate the medical condition" or is not taking their medicine (reads on "is noncompliant") (LASH, paragraph [0040]).

The motivations for combining the respective teachings of Lash and Trusheim are as given in the rejection of claim 1 above, and incorporated herein.

(E) As per newly added claim 32, LASH and Trusheim disclose a method for targeting one or more high-risk members of a health plan for proactive care (Lash; paragraph [0012]), (Trusheim; column 5, lines 39-48), the method comprising:

storing healthcare data for each of a plurality of members of the heath plan, wherein the stored healthcare data comprises data associated with a plurality of disease categories (Lash; Table 2, paragraphs [0007], [0010] , [0022], [0036], [0038], [0050], [0053]-[0054]); Examiner interprets Lash's teachings of "[t]he present invention is desirably used to predict which patients of various types, e.g., asthmatic or diabetic patients, [i.e. a plurality of diseases] will become heavy users of medical services" (Lash; paragraph [0010]), to teach a form of "wherein the stored healthcare data comprises data associated with a plurality of disease categories";

storing a plurality of intervention "codes" (reads on "flags"), each associated with a health-related condition or occurrence that represents a member attribute amenable to intervention (Trusheim; Figure 32, column 2, lines 46-60, column 3, line 55 to column 4, line 11, column 5, lines 20-29, column 11, lines 10-17, 27-40, column 12, lines 8-11);

searching the stored healthcare data to identify any members having associated stored healthcare data representing one or more of the health-related conditions or occurrences associated with one or more of the stored intervention flags (Trusheim; column 3, line 55 to column 4, line 25, column 15, line 54 to column 16, line 12, column 19, lines 46-60);

assigning one or more intervention flags to each identified member based upon the identified member's associated stored healthcare data (Trusheim; column 5, lines 39-48); and

generating an output including the identified members and their associated intervention flags and healthcare data (Trusheim; Figure 29, Figure 30, Figure 32, column 21, lines 16-18, column 21, line 64 to column 22, line 10).

The motivations for combining the respective teachings of Lash and Trusheim are as given in the rejection of claim 1 above, and incorporated herein.

(F) As per newly added claim 33, LASH and Trusheim disclose a method for targeting one or more high-risk members of a health plan for proactive care (Lash; paragraph [0012]), (Trusheim; column 5, lines 39-48), the method comprising:

storing healthcare data and a predicted future healthcare utilization value for each of a plurality of members of the heath plan, wherein the stored healthcare data comprises data associated with a plurality of disease categories, and wherein the predicted future healthcare utilization for each of the plurality of members is based on the stored healthcare data for each of the plurality of members (Lash; Table 2, paragraphs [0007], [0010] , [0022], [0036], [0038], [0050], [0053]-[0054]); Examiner interprets Lash's teachings of "[t]he present invention is desirably used to predict which patients of various types, e.g., asthmatic or diabetic patients, [i.e. a plurality of diseases] will become heavy users of medical services" (Lash; paragraph [0010]), to teach a form of "wherein the stored healthcare data comprises data associated with a plurality of disease categories;

storing a plurality of intervention "codes" (reads on "flags"), each associated with a health-related condition or occurrence that represents a member attribute amenable to intervention (Trusheim; Figure 32, column 2, lines 46-60, column 3, line 55 to column 4, line 11, column 5, lines 20-29, column 11, lines 10-17, 27-40, column 12, lines 8-11);

searching the stored healthcare data to identify one or more intervention members, each intervention member having associated stored healthcare data representing one or more of the health-related conditions or occurrences associated with one or more of the stored intervention flags (Trusheim; column 3, line 55 to column 4, line 25, column 15, line 54 to column 16, line 12, column 19, lines 46-60);

assigning one or more intervention flags to each intervention member based upon the intervention member's associated stored healthcare data (Trusheim; column 5, lines 39-48);

selecting one or more high-risk members from the plurality of members in the health plan based upon the members' respective predicted future healthcare utilization values (LASH; Figures 2, 3, 3A, 3B, paragraphs [0007], [0010], [0021]-[0022], [0025], [0036]-[0038], [0042], [0057]); and

generating an output including the intervention members, the selected high-risk members, and their associated healthcare data (Trusheim; Figure 29, Figure 30, Figure 32, column 3, line 56 to column 4, line 18, column 5, lines 1-8, column 21, lines 16-18, column 21, line 64 to column 22, line 10).

The motivations for combining the respective teachings of Lash and Trusheim are as given in the rejection of claim 1 above, and incorporated herein.

12. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over LASH (2001/0020229 A1) and Trusheim, et al, U.S. Patent Number 6, 385, 589, as applied to claim 1 above and further in view of Lutgen et al. (US 2003/0167189A1).

(A) As per newly amended claim 12, LASH and Trusheim teach a method as analyzed and discussed in claim 1 above

further comprising identifying a medical episode and all associated claim data in the data set that contributes to a selected member's identification as high-cost (LASH; paragraphs [0007], [0022], [0036]-[0038], [0042], [0057]).

Lash and Trusheim fail to explicitly disclose

wherein the medical episode is defined in terms of a disease grouping.

However the use of medical codes such as CCG to identify medical episodes is well known in the art, as evidenced by Lutgen.

In particular Lutgen teaches the use of medical codes such as clinical care groupings (CCG) to identify medical episodes (Lutgen; paragraphs [0021], [0029]-[0033], [0038]).

It would have been obvious to one having ordinary skill in the art at the time of the invention to include CCG categories with the motivations of providing a system that would be easy for health plans, large employers, or any other company with large claims databases to implement and maintain by conforming to standardized practices (Lutgen; paragraphs [0004], [0023]).

(B) As per newly amended claim 13, LASH, Trusheim and Lutgen disclose a method as analyzed and discussed in claims 1 and 12 above

wherein the medical "event" (reads on "episode") from the data set contributing to the selected member's identification as high-cost is identified by determining which of a plurality of medical episodes present in the data set has a highest actual cost (Trusheim; column 3, line 55 to column 4, line 11).

13. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over LASH (US2001/0020229 A1), Trusheim, et al, U.S. Patent Number 6, 385, 589 and Lutgen et al. (US 2003/0167189A1), as applied to claims 1 and 12 above, and further in view of Lockwood et al. U.S. Patent Number 5, 845, 254.

(A) As per newly amended claim 14-15, LASH, Trusheim and Lutgen disclose a method as analyzed and discussed in claims 1 and 12 above

wherein the medical episode from the data set contributing to the selected member's identification as high-cost is identified by determining which of a plurality of medical episodes in the data set has a highest average cost (Trusheim; column 3, line 55 to column 4, line 11); and

wherein the medical episode from the data set contributing to the selected member's identification as high-cost is identified by assigning a ranking to each of the plurality of medical episodes present in the data set (LASH, Abstract, paragraphs [0037]-[0039],[0048], [0054], Table 2) (Lutgen; paragraph [0022], [0058], [0066]).

LASH, Trusheim and Lutgen fail to recite the average benchmark cost.

However, the use of benchmarks to average cost is well known as evidenced by Lockwood.

In particular, Lockwood discloses a method for monitoring healthcare performance of providers in which benchmark is used to average cost (Lockwood; column 13, line 52 to column 14, line 65). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the combined teachings of LASH, Trusheim and Lutgen to include benchmarks, as taught by Lockwood, with the motivation of determining a reasonable cost range

for evaluating and monitoring costs of claims from different providers (Lockwood; column 2, lines 32-38).

Response to Arguments

14. Applicant's arguments filed 19 April 2007 have been fully considered but they are not persuasive. Applicant's arguments will be addressed hereinbelow in the order in which they appear in the response filed 19 April 2007.

(A) At pages 7-8 of the 19 April 2007 response Applicant argues that the Lash reference "describes a system and method for predicting the likelihood that a patient having one disease or condition will acquire ... [...] ... characteristics" and that the Lash reference "must represent a single diagnosis or disease" and as such the Lash reference fails to teach "wherein the stored healthcare data comprises data associated with a plurality of disease categories" as recited in newly amended claim 1. Examiner respectfully disagrees. Examiner interprets Lash's teachings of "[t]he present invention is desirably used to predict which patients of various types, e.g., asthmatic or diabetic patients, [i.e. a plurality of diseases] will become heavy users of medical services" (Lash; paragraph [0010]), to teach a form of "wherein the stored healthcare data comprises data associated with a plurality of disease categories." Further, Examiner notes that it is the entire combined applied reference(s) that must be considered when evaluating whether or not the applied references teach the cited limitations. Moreover, in response to applicant's arguments against the references individually, Examiner notes that one cannot show nonobviousness by attacking references individually where the rejections are based on

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The remainder of Applicant's arguments with respect claims 1-15, 32-33 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The cited but not applied references Toan, et al., U.S Patent Application Publication Number 2002/0095316, Wong, et al., U.S Patent Number 5976082, Hildebrand et al. U.S. Patent Number 6470320, Martin et al., U.S Patent Application Publication Number 2002/0004725, Kanai, U.S Patent Number 5619990, and Boyko, European Patent Application Number EP 0 917 078 A1 teach the environment of identifying high-risk patients.

16. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington D.C. 20231

or faxed to: **(571) 273-8300.**

For informal or draft communications, please label "PROPOSED" or "DRAFT" on the front page of the communication and do NOT sign the communication.

After Final communications should be labeled "Box AF."

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalie A. Pass whose telephone number is (571) 272-6774. The examiner can normally be reached on Monday through Thursday from 9:00 AM to 6:30 PM. The examiner can also be reached on alternate Fridays.

18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas, can be reached at (571) 272-6776. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Receptionist whose telephone number is (571) 272-3600.

19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Natalie A. Pass

June 22, 2007

ROBERT W. MORGAN
PRIMARY EXAMINER
TECHNOLOGY CENTER 3600